UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA

PLUSTEK, INC,

No. C 07-5718 JL

Plaintiff,

CLAIM CONSTRUCTION ORDER

٧.

SYSCAN, INC, et al.,

Defendants.

I. Introduction

On October 21, 2008, the Court held a claim construction hearing pursuant to *Markman v Westview Instruments, Inc.* Based on the parties' arguments at the hearing and their submissions to the court, the court issues the following claim construction order.

There is one patent-in-suit, U.S. Patent No.6,704,124 (the "124 Patent"), issued March 9, 2004 to Inventors Darwin Hu, Alpha Hou, Dongtai Liu, and Chengrong Lu, and assigned to Syscan (Shenzhen) Technology Co. Limited, and Syscan, Inc. The patent relates to inventions in the field of image scanning. For ease of cross-reference to the parties' submissions, the court will discuss the patent and construe its terms in the same sequence as they appear in the parties' submissions. As the court writes principally for the parties, it will not discuss the details of the inventions or define terms well-known to those skilled in the art, except as necessary to construe the claims of the patents. Nor will the court recapitulate the parties' agreed-upon constructions contained in the joint claim

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construction and prehearing statement, Doc #35, to the extent the court agrees with those constructions.

II. Applicable Law

The construction of patent claims is a question of law to be determined by the court. Markman v Westview Instruments, Inc, 517 US 370 (1996). The goal of claim construction is "to interpret what the patentee meant by a particular term or phrase in a claim." Renishaw PLC v Marposs Societa per Azioni, 158 F3d 1243, 1249 (Fed Cir 1998). In determining what a patentee meant by a term or phrase, the court looks first to the claim itself: The claims of the patent provide the concise formal definition of the invention. They are the numbered paragraphs which "particularly [point] out and distinctly [claim] the subject matter which the applicant regards as his invention." 35 USC § 112. One must look to these words to determine whether there has been infringement.

Courts "cannot alter what the patentee has chosen to claim as his invention." SSIH Equipment SA v. U.S. Int'l Trade Comm'n., 718 F.2d 365, 378 (Fed. Cir. 1983). It is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim. El Du Pont de Nemours & Co v Phillips Petroleum Co, 849 F2d 1430, 1433 (Fed Cir 1988). However, this does not include adding an extraneous limitation, that is, one that is not required by the specification. *Id.* "The claims define the scope of the right to exclude; the claim construction inquiry, therefore, begins and ends in all cases with the actual words of the claim." Renishaw, 158 F3d at 1248. "The words used in the claim are viewed through the viewing glass of a person skilled in the art." Brookhill-Wilk 1, LLC v Intuitive Surgical, Inc, 326 F3d 1215, 1220 (Fed Cir 2003) (citing Tegal Corp v Tokyo Electron Am, Inc, 257 F3d 1331, 1342 (Fed Cir 2001)). "Without an express intent to impart a novel meaning to claim terms, an inventor's claim terms take on their ordinary meaning." York Prods, Inc v Central Tractor Farm & Family Ctr, 99 F3d 1568, 1572 (Fed Cir 1996).

The court may, if necessary, consult a variety of sources to determine the ordinary and customary meaning of a claim term, including "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning

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relevant scientific principles, the meaning of technical terms, and the state of the art." Innova/Pure Water, Inc v Safari Water, 381 F3d 1111, 1116 (Fed Cir 2004).

The court begins its construction of claim terms by consulting intrinsic evidence of the scope and meaning of disputed claim terms, which includes the claims, the specification, and the prosecution history (if in evidence). Lacks Industries, Inc v McKechnie Vehicle Components USA, Inc, 322 F3d 1335, 1341 (Fed Cir 2003). "If upon examination of this intrinsic evidence the meaning of the claim language is sufficiently clear, resort to 'extrinsic' evidence, such as treatises and technical references, as well as expert testimony when appropriate, should not be necessary." Digital Biometrics, Inc, v Identix, Inc, 149 F3d 1335, 1344 (Fed Cir 1998). "[I]f after consideration of the intrinsic evidence, there remains doubt as to the exact meaning of the claim terms, consideration of extrinsic evidence may be necessary to determine the proper construction." Id.

Although extrinsic evidence such as expert and inventor testimony, dictionaries and learned treatises can shed useful light on the relevant art, it is less significant than the intrinsic record in determining the legally operative meaning of claim language. Phillips v AWH Corp, 415 F3d 1303, 1317 (Fed Cir 2005). "[A] court may constrict the ordinary meaning of a claim term in one of four ways[:]" (1) "if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim in either the specification or prosecution history;" (2) if the intrinsic evidence shows that the patentee distinguished the term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention; (3) "if the term chosen by the patentee so deprives the claim of clarity as to require resort to other intrinsic evidence for a definite meaning; and (4) "if the patentee phrased the claim in step- or means-plus-function format," then "a claim term will cover nothing more than the corresponding structure or step disclosed in the specification, as well as equivalents thereto." CCS Fitness, Inc v Brunswick Corp, 288 F3d 1359, 1366-67 (Fed Cir 2002) (internal citations and quotation marks omitted).

Limitations from the specification, such as from the preferred embodiment, cannot be read into the claims absent an express intention to do so. *Teleflex, Inc v Ficosa North Am Corp*, 299 F3d 1313, 1326 (Fed Cir 2002) ("The claims must be read in view of the specification, but limitations from the specification are not to be read into the claims."). But "a construction that excludes a preferred embodiment 'is rarely, if ever, correct." *C R Bard, Inc v US Surgical Corp*, 388 F3d 858, 865 (Fed Cir 2004) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F3d 1576 at 1583 (Fed. Cir. 1996)). Conversely, if "the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question." *SciMed Life Systems, Inc v Advanced Cardiovascular Systems, Inc*, 242 F3d 1337, 1341 (Fed Cir 2001).

With these legal principles in mind, the court turns to the construction of the disputed claim language of the patent-in-suit.

III. ANALYSIS

A. The '124 Patent

The '124 patent discloses a mobile scanner which includes only the minimum components to operate as a scanner. The disclosed scanner does not have a separate power supply to energize the components to work. Further, unlike many scanners in the market, there is not a single microcontroller in the disclosed mobile scanner while the performance therefor could outperform those scanners commanded traditionally by a microcontroller in the scanners. The disclosed scanner is coupled by an interface engine to a computing device that provides system control signals and power supply. The interface engine comprises a control circuit providing logic control signals and power supply. The interface engine comprises a control circuit providing logic control signals to the scanner to operate in response to the system control signals. As such, the scanner is of high performance and low cost and so lightweight that it can be used in any conditions. (Abstract

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of '124 Patent, Ex. A to Decl. Of Sang. N. Dang. ISO Plustek's Responsive Claim Construction Brief).

В. **Patent Terms in Dispute**

1. "Main Case"

Plustek asks the Court to construe this claim as "a compact case that can be made of light but rigid plastic material and that houses only a color image sensing module and a motion mechanism." [Alternatively, Plustek asks the Court to construe this term as "a compact case compatible with portability that can be made of light but rigid plastic material and that houses only a color image sensing module and a motion mechanism."] (Emphasis added)

Syscan argues for "a case compatible with portability that houses an image sensing module and a motion mechanism."

The specification clearly distinguishes the patented scanner from the prior art on the basis of the scanner's minimalist approach: "The disclosed invention, for the first time, provides a mobile scanner that has only the minimum components to operate." See Dang Decl., ¶ 2, Ex. A ('124 Patent), 2:30-32, emphasis added. "It is disclosed that a mobile scanner includes only the minimum components to operate as a scanner." See Dang Decl., ¶ 2, Ex. A ('124 Patent), Abstract.

"[T]he scanner itself comprises only an image sensing module and a motion mechanism." See Dang Decl., p 2, Ex. A ('124 Patent), 2:42-44, emphasis added. "It should be pointed out that, fundamentally different from the scanners in the market, there is no microcontroller and other electronic components in main module to control the operation of the image sensor and the illumination source." See Dang Decl., ¶ 2, Ex. A ('124 Patent), 7:3-7, emphasis added.

In summary, it is clear from the specification that the patentee intended only to claim scanners which contain only the components necessary to operate (an image sensing module and a motion mechanism) to distinguish the patented scanner from the prior art. The Federal Circuit has consistently held that "where the specification makes clear

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that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question." SciMed Life Systems, Inc., 242 F.3d at 1341; see also CCS Fitness, 288 F.3d at 1366-67 ("a claim term will not receive its ordinary meaning if the intrinsic evidence shows that the patentee distinguished the term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.").

Therefore, the Court construes this claim as "a compact case that can be made of light but rigid plastic material and that houses only an image sensing module and a motion mechanism."

2. "Portable Housing"

Plustek asks the Court to construe this term as "a compact case that can be made of light but rigid plastic material and that houses only a color image sensing module and a motion mechanism," the same as its proposed construction for "main case." Alternatively, a compact case compatible with portability that can be made of light but rigid plastic material and that houses only a color image sensing module and a motion mechanism."

Syscan prefers "a mobile case."

The portable housing must be the main case. The specification fails to mention or describe the term "portable housing", although the claims recite the term. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), 11:28 (claim 8), 12:4 (claim 15), 12:50 (claim 21). In fact, the first time the term "portable housing" is mentioned is in claim 8. See Dang Decl., ¶ 2, Ex. A ('124 Patent), 11:28. In addition, the claims consistently recite that the image sensing module is mounted in the portable housing. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), 11:29 (claim 8), 12:5 (claim 15), 12:51 (claim 21). The specification discloses only one structure, the main case (also referred to as the "main module" or the "compact case"), that contains the image sensing module and the motion mechanism. See e.g., Dang Decl., ¶ 2,

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Ex. A ('124 Patent), Fig. 4A (element 402 is the main case, element 406 is the image sensing module, and element 408 represents the motion mechanism), 5:18-20 ("both image sensing module and motion mechanism are housed in a compact case"), 5:27-29 ("Main case 402 houses an image sensing module and motion mechanism..."). Although the specification does not include the term "portable housing", the claims actually recite the term. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), 11:28 (claim 8), 12:4 (claim 15), 12:50 (claim 21).

When the patentee wanted to claim that a particular element resides in the portable housing (or main case), the patentee specifically did so. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), 11:29-30 ("an image sensing module mounted in the housing ..." emphasis added), 10:44 ("a main case housing an image sensing module and a motion mechanism ..." emphasis added).

For all the above reasons, this Court construes the term "portable case" to be "a compact case that can be made of light but rigid plastic material and that houses only a color image sensing module and a motion mechanism."

3. "Image Sensing Module"

Plustek asks the Court to construe this term as "a module that is controlled by electronic components located outside of the scanner, and that includes a one-dimensional image sensor, an optical system, and a first illumination source."

Syscan argues it should be "a module including a one-dimensional image sensor, an optical system, and a first illumination source."

The specifications provide, inter alia, that "[T]he scanner itself comprises only an image sensing module and a motion mechanism." See Dang Decl., ¶ 2, Ex. A ('124 Patent), 2:42-44, emphasis added.

"It should be pointed out that, fundamentally different from the scanners in the market, there is no microcontroller and other electronic components in main module 402 to control the operation of the image sensor and the illumination source. Dang Decl., ¶ 2, Ex. A '124 Patent), 7:3-7, emphasis added.

It is clear from the specification that the patentee intended only to claim scanners which contain only the components necessary to operate (an image sensing module and a motion mechanism) to distinguish the patented scanner from the prior art. The Federal Circuit has consistently held that "where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question." *SciMed Life Systems, Inc.*, 242 F.3d at 1341; see also *CCS Fitness*, 288 F.3d at 1366-67 ("a claim term will not receive its ordinary meaning if the intrinsic evidence shows that the patentee distinguished the term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.").

The Court construes this claim as "a module that is controlled by electronic components located outside of the scanner, and that includes a one-dimensional image sensor, an optical system, and a first illumination source."

4. "Motion Mechanism"

Plustek asks the Court to construe this term as "a mechanism that is controlled by electronic components located outside of the scanner, and that is responsible for moving the scanning document so as to cause it to pass through the image sensing module at a steady speed."

Syscan argues for "that mechanism responsible for moving the scanning document so as to cause it to pass through the image sensing module at a steady speed."

The specification states that "fundamentally different from the scanners in the market, there is no microcontroller and other electronic components in main module 402 to control the operation of the image sensor and the illumination source." See Dang Decl., ¶ 2, Ex. A ('124 Patent), 7:3-7, emphasis added. The interface engine and the control circuit are electronic components that control the operation of the image sensor and the illumination source as well as the motion mechanism. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), Fig. 3, 6:32-34, 11:9-13 (claim 5), Fig. 5, 7:63-65, 7:66-8:10.

The patent's express exclusion dictates that the image sensor (or image sensing module) and the motion mechanism must be controlled by electronic components located outside of the patented scanner. *SciMed Life Systems, Inc.*, 242 F.3d at 1341 ("where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question"); see also *CCS Fitness*, 288 F.3d at 1366-67 ("a claim term will not receive its ordinary meaning if the intrinsic evidence shows that the patentee distinguished the term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.").

The Court construes this claim as "a mechanism that is controlled by electronic components located outside of the scanner, and that is responsible for moving the scanning document so as to cause it to pass through the image sensing module at a steady speed."

5. "Interface Engine"

Plustek asks the Court to construe this term as "an interface module located outside of the main case that houses the image sensing module and the motion mechanism."

Syscan argues it should be "a control circuit that receives system control signals and electrical power from the computing device and generates logical control signals for the image sensing module and motion mechanism and provides electrical power to the image sensing module and motion mechanism."

The interface engine and the control circuit are electronic components that control the operation of the image sensor and the illumination source as well as the motion mechanism. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), Fig. 3, 6:32-34, ("interface engine 312 provides an interface between image sensing module 302 and computing device 314.") 11:9-13 (claim 5) ("the interface engine provides a power supply and control signals to the image sensing module and the motion mechanism to operate when the interface engine [is] coupled to the computing device."), Fig. 5, Therefore, the interface

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engine and the control circuit must be located outside of the main case. *SciMed Life Systems, Inc.*, 242 F.3d at 1341; see also *CCS Fitness*, 288 F.3d at 1367.

The Court construes this claim as "an interface module located outside of the main case that houses the image sensing module and the motion mechanism."

6. "Control Circuit"

Plustek argues for "an electronic circuit that is located outside of the main case and that receives system control signals from the computing device and generates logical control signals for the image sensing module and motion mechanism."

Syscan argues for "a circuit that receives system control signals from the computing device and generates logical control signals for the image sensing module and motion mechanism."

The specification repeatedly and clearly distinguishes the patented scanner from the prior art on the basis of the patented scanner's minimalist approach. More specifically, the specification states that "fundamentally different from the scanners in the market, there is no microcontroller and other electronic components in main module 402 to control the operation of the image sensor and the illumination source." See Dang Decl., ¶ 2, Ex. A ('124 Patent), 7:3-7, emphasis added. The patent's express exclusion dictates that the image sensor (or image sensing module) and the motion mechanism must be controlled by electronic components located outside of the patented scanner. SciMed Life Systems, Inc., 242 F.3d at 1341 ("where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question"); see also CCS Fitness, 288 F.3d at 1366-67 ("a claim term will not receive its ordinary meaning if the intrinsic evidence shows that the patentee distinguished the term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.").

The interface engine and the control circuit are electronic components that control the operation of the image sensor and the illumination source as well as the motion

mechanism. See e.g., Dang Decl., ¶ 2, Ex. A ('124 Patent), Fig. 3, 6:32-34, 11:9-13 (claim 5), Fig. 5. Therefore, the interface engine and the control circuit must be located outside of the main case. *SciMed Life Systems, Inc.*, 242 F.3d at 1341; see also *CCS Fitness*, 288 F.3d at 1367.

The Court construes this claim as "an electronic circuit that is located outside of the main case and that receives system control signals from the computing device and generates logical control signals for the image sensing module and motion mechanism."

7. "Mobile Scanner"

Plustek asks the Court to construe this term narrowly, as "a dual-mode portable scanner."

Syscan asks for a broader interpretation, as "a portable scanner, so lightweight that it can be used in any conditions."

The patentee distinguished prior art based on the patented scanner's ability to perform both opaque and transparent scanning:

According to one aspect of the present invention, the disclosed scanner comprises two demountable cases. The main case houses the image sensing module and the motion mechanism and the base case houses a second illumination source. The first illumination source in the image sensing module provides front illumination to an opaque scanning object while the second illumination source provides back illumination to a transparent scanning object, as such the disclosed scanner is capable of scanning both opaque and transparent materials, a dual scanning feature that has been long sought in the scanning market....21

Base module 404 is one of the distinctive features of the present invention. With base module 404 mounted to main module 402, mobile scanner 400 is capable of scanning both transparent and opaque documents.

Where the specification clearly shows a particular feature that is distinctive over the prior art, then the claims should be construed to include that feature. *SciMed*, 242 F.3d at 1342-44; see also *CCS Fitness, Inc.*, 288 F.3d at 1366-67.

The Summary of the Invention of the '124 Patent states, "According to another aspect of the present invention, the disclosed scanner comprises two demountable cases" (2:59-60). The Specification further states that a "dual scanning feature" has been long sought in the scanning market (3:1-2) and further specified that (i) this embodiment of the

mobile scanner has two demountable portions, a main case and a base case (5:24-27), emphasis added, (ii) in this embodiment the operator user uses a main module to scan paper-sheet materials (6:3-6), and (iii) the user can mount the base module onto the *main module when the user decides to scan transparent materials* (6:6-10), emphasis added.

The Specification makes clear that this embodiment of the mobile scanner can perform (i) a single-mode scanning feature solely for the opaque materials by using main case (2:60-66, 6:3-6), and (ii) another single-mode scanning feature for the transparent materials by mounting the base case to the main case (2:62-66, 5:43-46, 6:6-9).

The asserted claims can be assigned a narrower scope only if there is some indication in the patent or the prosecution history that the term was meant to have a more restrictive meaning as used in the patent, or a broader meaning was disclaimed during prosecution. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc).

The Court construes this claim as "a portable scanner, so lightweight that it can be used in any conditions."

8. "First Illumination Source"

Plustek argues for a construction of this term as "a light source comprising three colored lights to provide illumination to the front face of a scanning object when the scanning object is opaque."

Syscan asks the Court to adopt its construction of "an illumination source providing front illumination to an opaque scanning object."

The pertinent law requires that the asserted claims can be assigned a narrower scope only if there is some indication in the patent or the prosecution history that the term was meant to have a more restrictive meaning as used in the patent, or a broader meaning was disclaimed during prosecution. *Saunders Group, Inc. v. Comfortrac, Inc*, 492 F.3d 1326 at 1331 (Fed. Cir. 2007) (internal citation omitted). Thus, nothing in the plain language of the '124 Patent or specification supports the limitation "first illumination source is a light source comprising three colored lights." Such a narrow construction fails the test of *Saunders Group*.

Under the doctrine of claim differentiation, each claim in a patent is presumptively different in scope. *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001). The only claim language which specified "an illumination source comprising three colored lights" appears in the independent claim 8. (11:33). However, specific language set forth in claim 8 delineates the operation process of three colored lights in an illumination source that are turned on independently and successively by an illumination control signal. Nothing in claims 1 and 2 requires that a limitation of "three colored lights" be applied to "first illumination source." Indeed, in the rest of the claims involving "an illumination source," there is no such limitation of "three colored lights." (Claims 15 and 21) (See 12:11, 12:55). Under the doctrine of claim differentiation set forth in *Wenger*, "a light source comprising three colored lights" cannot and should not universally apply to the first illumination source.

The Court construes this claim as "an illumination source providing front illumination to an opaque scanning object."

IV. CONCLUSION

The Court has construed all disputed claim terms and phrases of the patent-in-suit. With respect to language that the Court has declined to construe, should future circumstances require that it be given a definitive construction, a party may move for construction of that language.

Notwithstanding any further orders the Court may make regarding claim construction, this order shall be deemed to be the "claim construction order" for scheduling purposes. Within two weeks of the filing of this claim construction order, the parties shall submit a proposed schedule for further proceedings.

IT IS SO ORDERED.

DATED: December 21, 2009

James Larson U.S. Magistrate Judge

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